

Genotypes Evaluation of Human Papillomavirus in Esophageal Squamous Cell Carcinoma

Yousef Yahyapour*^{1,2}; Seyed Hamid Reza Monavari³

1-Babol University of Medical Sciences, Babol, Iran

2- Tehran University of Medical Sciences, Tehran, Iran

3-Department of Virology, Faculty of Medicine, Tehran University of Medical Sciences, Tehran, Iran

uyahyapoor@yahoo.com

Background & Objectives: Human papillomavirus (HPV) has been associated with several disorders of the genital tract, skin and oropharynx. The aims of this study were to evaluate the prevalence of HPV infection in Esophagus Squamous Cell Carcinoma (ESCC) in Mazandran (North of Iran) and to identify the prevalence of some high and low risk Human papillomaviruses (HR & LR-HPV) genotypes.

Methods: From 2004 to 2011, we examined formalin-fixed and paraffin-embedded ESCC specimens from Shahid Beheshti Hospital in Babol, Mazandaran, Iran. All the patients live in Mazandaran province, a region in Asian belt of esophagus cancer. 135 samples of ESCC tested for HPV-DNA and HPV genotypes by Real time PCR HPV Genotyping.

Results: Overall HPV-DNA positivity was detected in 25.2% of the ESCC samples. The prevalence of HR-HPV and LR-HPV infection among HPV positive samples was 44.1% with a specific prevalence of HPV 11, 6, 45, of 14.3%, 11.8% and 11.8%, respectively; 5.9% for every type of 31, 33, 39, 52, 56 and 2.9% of ESCC patient infected with every HPV genotypes of 16, 35 and 59. Multiple infections with any HPV types were 17.6% of HPV L1 positive samples.

Conclusion: In spite of large studies that implicated HPV plays an important role in ESCC, we found that HPV does not an important risk factor for ESCC in our patients. However this findings needs to clarify in a study with bigger sample size.

Keywords: Papillomavirus; Carcinoma; Genotyp